

The 2018 Season Summary

Western Australia's final grain production for the 2018 Season is 17.9 million tonnes, the second highest on record with a value of just under AUD\$7 billion dollars. Earlier predictions of 14 million tonnes following the dry spring and several severe frost events were eclipsed by a nearly 4 million tonne turnaround over most parts of the state, due to the late 'soft finish' mild temperatures during grain fill prior to harvest.

Total tonnage for the Kwinana port zone was up 2.2m tonnes from 2017 and Geraldton port zone up 2m tonnes up from 2017. The Esperance and Albany port zones were both down from 2017 with a decrease of 0.5m tonnes for Esperance port zone and 0.2m tonnes for the Albany port zones, a reflection of the poor growing season in the western and northern areas of the Esperance port zone and the east Albany port zone.

The standout crop in 2018 was barley with an average grain yield of 3.19 tonnes per hectare, well above recent averages. The percentage of barley making malt grades was up by nearly 10 per cent on historical averages, with a record total tonnage produced of just over 5m tonnes.

This is the fourth time Western Australia has produced 10m tonnes or more of wheat and three of those years were in the last seven years, including a trend over that time of declining area. Only 54 per cent of the crop area in Western Australia was wheat in 2018, the lowest on record.

2018 GIWA WA Final Crop Production Estimates (tonnes)

Port zone	Wheat	Barley	Canola	Oats	Lupins	Pulses	State total
Kwinana	4,960,000	2,520,000	560,000	295,000	140,000	5,000	8,480,000
Albany	1,150,000	1,560,000	320,000	245,000	45,000	1,000	3,321,000
Esperance	1,340,000	790,000	300,000	20,000	15,000	25,000	2,490,000
Geraldton	2,700,000	265,000	270,000	15,000	370,000	2,000	3,622,000
Totals	10,150,000	5,135,000	1,450,000	575,000	570,000	33,000	17,913,000
Change to 2017 Season	33.6%	35.1%	-23.7%	19.8%	26.7%	-26.7%	25.5%

Note: grain totals reported are for whole farm production. This includes on-farm seed and feed requirements and trade outside of the CBH network. *Barley area estimates adjusted following July Crop Report to reflect extra barley sown late in season, increased by 150,000ha.

2018 GIWA Final WA Crop Yield estimates (tonnes per hectare)

Port zone	Wheat	Barley	Canola	Oats	Lupins	Pulses
Kwinana	1.87	3.60*	1.19	2.00	1.08	0.50
Albany	1.47	2.60	1.14	1.88	1.13	0.33
Esperance	2.63	2.26	1.43	2.00	1.50	1.25
Geraldton	2.93	2.41	2.08	1.50	1.94	2.00
Averages	2.23	2.72	1.46	1.85	1.41	1.02

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2018 Season Grain Quality Comments

Grain weight was high in most regions of the state, a function of the soft slow finish to the season. Screenings were generally low except for some very high yielding barley varieties such as Planet when grown on the eastern fringes of the medium rainfall regions. In the southern regions of the state there were reasonable tonnages of malt grade barley downgraded to feed from germ end stain due to rain and humidity during grain-fill and prior to harvest.

Wheat grain protein was lower than in recent years, influenced mainly by the dilution from higher than expected yields. A noticeable recent trend is that wheat grain protein is more likely to hold up on ameliorated soils where crops are more able to use the available soil moisture “bucket”. This gives growers more confidence in fertilizing for maximum potential.

Around 40 per cent of all barley deliveries made malt grade which is about 10 per cent more than normal. The percentage of malt grade deliveries were nearly 50 per cent in the Albany port zone, although this was biased by a greater percentage of feed barley production acquired privately in the zone than other regions of the state.

Canola oil quality was down slightly from recent years and generally lower than expected by growers considering the soft cool finish to the season. Most oil percentages were in the mid 40's rather than the high 40's. Canola grain yields were very erratic in 2018 with no single factor influencing the final result and this may have contributed to average oil percentages being lower than recent years.

Lupin area continues to climb on the back of the more determinate rather than indeterminate growth habit types recently released. These new varieties have more suitable adaptation in the southern areas and whilst producing less growth, are very good yielders for grain. The only downside is the prevalence of more split seed in the harvest sample, which appears somewhat to be due to variety, and possibly to higher yields requiring more manganese.

Milling oat demand continues to increase and Western Australia's reputation for producing a premium product was again enhanced with most milling grade oats delivered or privately acquired of very high grain quality.

Field peas continue to be grown in small quantities in the southern regions of the state. Many crops were hit by frost and produced low grain yields, although in the absence of frost, grain yields were good. The smaller areas of lentil, faba bean and chickpea are growing, although still too small to report on.

Geraldton Zone

Total grain production in the Geraldton port zone exceeded all expectations leading in to harvest, as little rain fell in the region after mid-August. The zone produced just over 3.5m tonnes of total grain, 2m tonnes more than 2017. The season was set up well with good stores of subsoil moisture from summer rains and was heading for a record until the tap was turned off. Many growers feared the worst, as the start to the season was later than normal, and for crops like canola much later than they would have preferred. It was expected that crops would turn their toes up when the heat came on in the spring. It was the lack of significant heat shock and very unseasonal mild temperatures which contributed to the turnaround in final grain yield.

Many growers commented that it was their best result with very minimal costs. There were significant areas of fallow or sprayed out crop from 2017 and this contributed to enabling crops to yield more than expected. The most significant contribution allowing crops to achieve good yields on very little growing season rainfall has been the large area of ameliorated soils in the region. The estimated 500,000 hectares

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of ameliorated soils each year is skewed heavily in the northern regions of the state. These areas of ameliorated country allow crops to more effectively utilise stored moisture and the 2018 growing season is testament to this production practice.

Kwinana Zone

The Midlands

The Midlands region of the state was very good from west to east as reported previously. The eastern regions had one of their best years in recent times. Coupled with very good grain prices this resulted in a huge turnaround for those growers hit by the very dry conditions in 2017.

The very western areas of the region did not perform as well, as waterlogging during August played a big part on leaching nutrients below the root zone and heavier soils were too saturated to recover in the spring.

Many growers struggled with grain protein in the region. One speculation as to the cause of low protein is that a variety can be a “lazy accumulator” which means it struggles to extract and mobilise enough nitrogen to support adequate grain protein during grain-fill. Another thought is that we are now regularly obtaining very high grain yields in cereals and canola, with few legumes in the system, meaning that old calculated rates of applied nitrogen may need re-evaluating. Yet another view is that growers are making increasingly sophisticated risk management decisions, finessing the financial rewards of yield vs protein in the recent high price conditions.

Kwinana West

The Kwinana West region had a record grain production year where daily delivery records and total delivery records were recorded for many CBH receival sites. Despite the record receivals of grain, in general the supply chain responded to the logistical challenge.

Grain quality was generally good, reflected in the greater confidence growers have in the higher rainfall regions to fertilise for maximum potential yield.

Kwinana East

The Kwinana East zone had a good year rather than a very good year as far as tonnages were concerned. The season was looking excellent until mid-August, with many growers taking more risks than usual with input costs on the back of the previously poor year, and with prices being higher than normal.

The season looked to “cut out” in August and crops were on the slide in September with estimates revised down as each week passed without rain. Crops were going white and some of the barley was damaged by frosts. Then, just in time, there was good general rain in the region during early October which allowed the wheat to recover to some extent and return close to average grain yields.

Albany Zone

Western Albany

Cereal crops in the West Albany region were excellent with some very high yields recorded in both wheat and barley. The start to the season was difficult with several very severe wind events and good

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rains falling later than in the northern regions of the state. The growing conditions were warm once crops emerged and when the rain cranked up in August most crops were able to handle the waterlogging better than normal.

Total growing season rainfall for the region was about average or below average with most cereal crops yielding well above average. Grain protein was lower than normal simply due to dilution from the very high yields.

The canola suffered more from the difficult start to the season, as was the case for most of the southern regions and never recovered to yield anywhere near what would normally be expected.

Southern Albany

The Southern Albany region bore most of the brunt of the very winding conditions at the start of the season and many growers were writing off the year as early as July. Just as many were looking to 2019 the rain started in August and the turn-around was incredible. Many cereals in the region ended up yielding close to average and whilst canola never really recovered, those areas that were re-sown to barley yielded well enough to recover much of the extra costs.

Snails in canola are emerging as a concern for many of the growers in the region. Canola rotations are tight with many paddocks barley/canola/barley/canola being the most profitable rotation. This rotation is at risk if snails are not controlled well enough to keep numbers down to very low levels in the sample.

Eastern Albany (Lakes Region)

The Lakes district did not have a good year with very low rainfall recorded, resulting in ongoing and challenging feed and water conditions. Whilst most enterprises either broke even or returned a small profit, there was a lot of frustration that more could not be made of the good prices. Nevertheless, water use efficiencies were off the scale for grain production as they often are with lower rainfall, *if* the rain falls when needed. The comment from experienced farmers in the region was “in the old days we wouldn’t have produced any crop at all in a year like this”. Modern farming practices have contributed to growers being able to make the most of just about whatever the season presents, and the 2018 season is testament to the skills and resilience of the Lakes district communities.

Esperance Zone

The Esperance port zone finished up with another good year despite a very difficult start. Wind, low rainfall and frost in the eastern regions of the zone contributed less to the region’s production than normal. The poor year in the east and north of the zone resulted in about 500K tonnes less than in 2017, which was a record year.

Grain yields in the central regions of the zone were exceptional with many wheat and barley crops yielding more than 5 tonnes per hectare. Grain protein was generally low in these crops as it was in many of the high yielding regions of the state.

Canola was disappointing and yielded below expectations for a range of reasons. As has been mentioned before in this report, canola is still a relatively immature crop compared to wheat and barley. For canola to achieve consistent yields in a range of seasons requires a high level of management as one or two

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“slip-ups” can result in grain yields not returning close to potential. Green peach aphid caused a lot of damage in canola crops during 2018 and while most growers realise the green bridge over summer is contributing to the problem, growers along the coast that keep green feed going for stock are probably not going to change what they are doing. Consequently some growers are considering reducing their exposure to canola and increasing the areas of pulses as a break crop.

The region leads the way with adoption and trialling of pulse crops. Whilst there were some unexpected problems with crops such as lentils with herbicide interaction with waterlogging, the increase in area planted to pulses is projected to keep going up.

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Season Outlook, February 2019

Ian Foster, Department of Primary Industries and Regional Development

The past three months over southern Western Australia have been drier and cooler than normal (see Figures 1 and 2 below), with lower than normal temperatures, a marked contrast to much of the rest of Australia.

A survey of Australian and international models shows low chances (30 to 40 per cent) of exceeding median rain for February to April over most of WA. See Figure 3 for the BoM rainfall outlook. Outlooks for longer timeframes suggest a continuing risk of below normal rainfall into early winter 2019. Should this scenario come to pass, the onset of winter growing season may be delayed or sporadic. Seasonal temperatures are likely to near-normal or cooler over the lower west and southwest, and warmer than normal for inland parts.

Eastern and north-eastern parts of the cropping area may see some rain later this week from the heat trough but at this stage it does not appear to be much, see Figure 4.

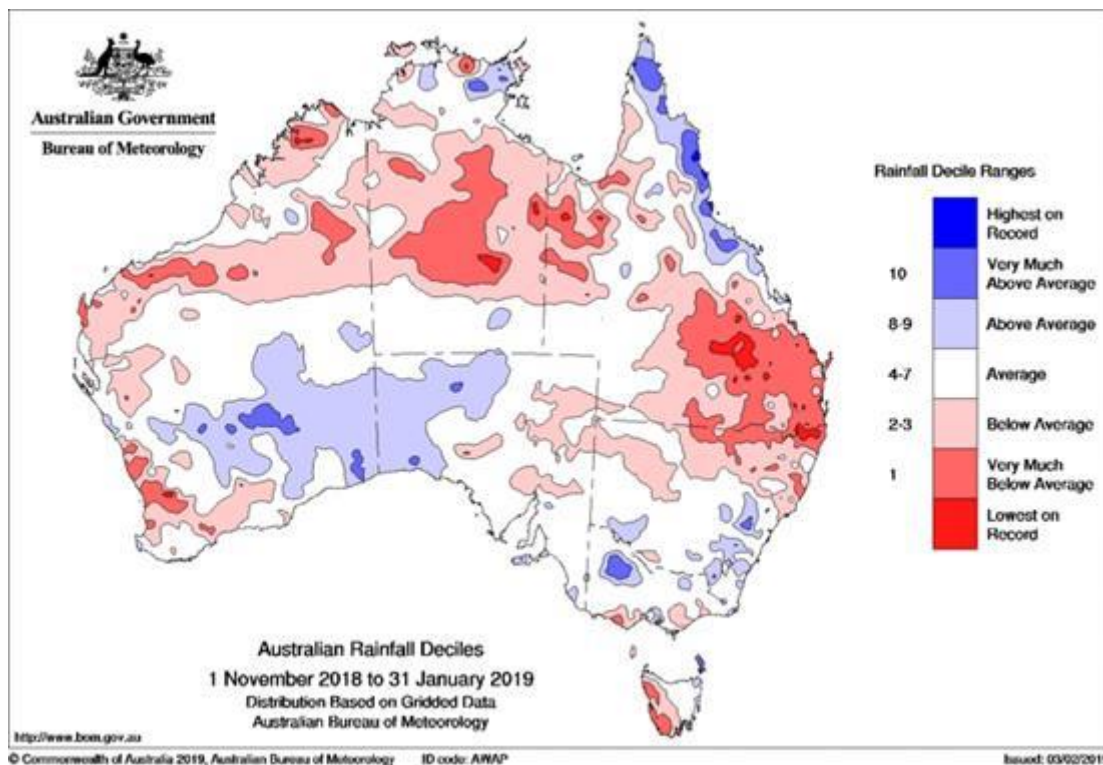


Figure 1 Rainfall decile Nov 2018 to Jan 2019.

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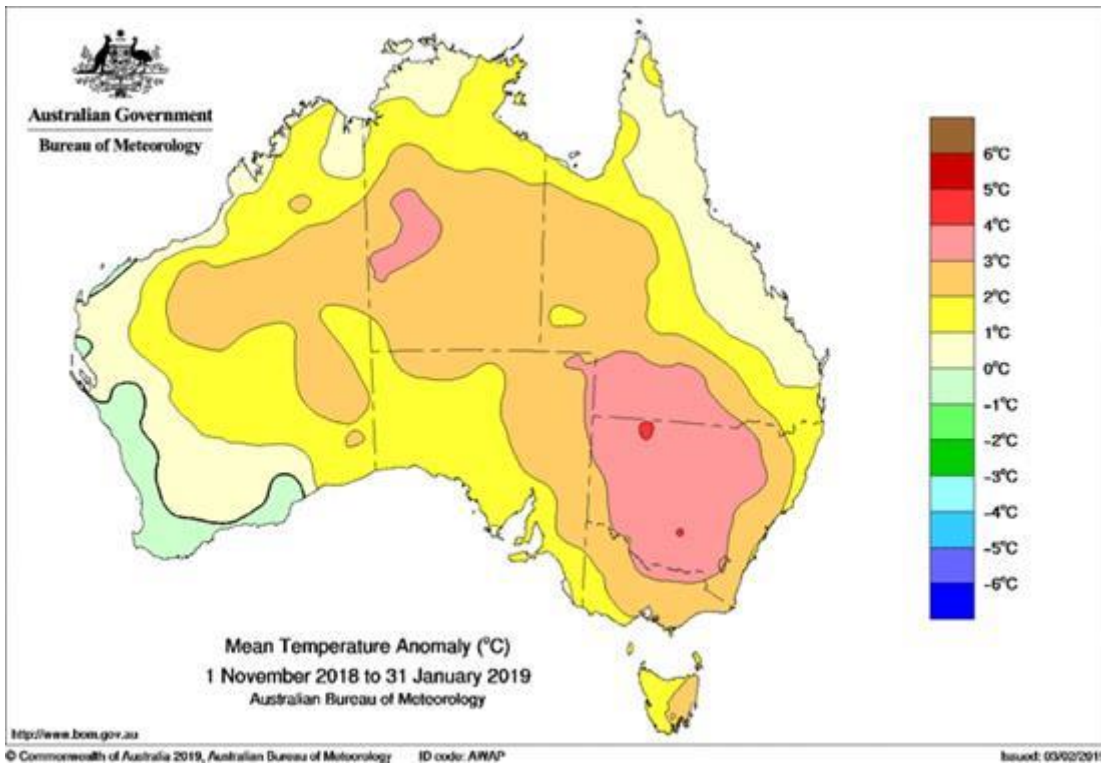


Figure 2. Anomaly of mean temperature for Nov 2018 to Jan 2019.

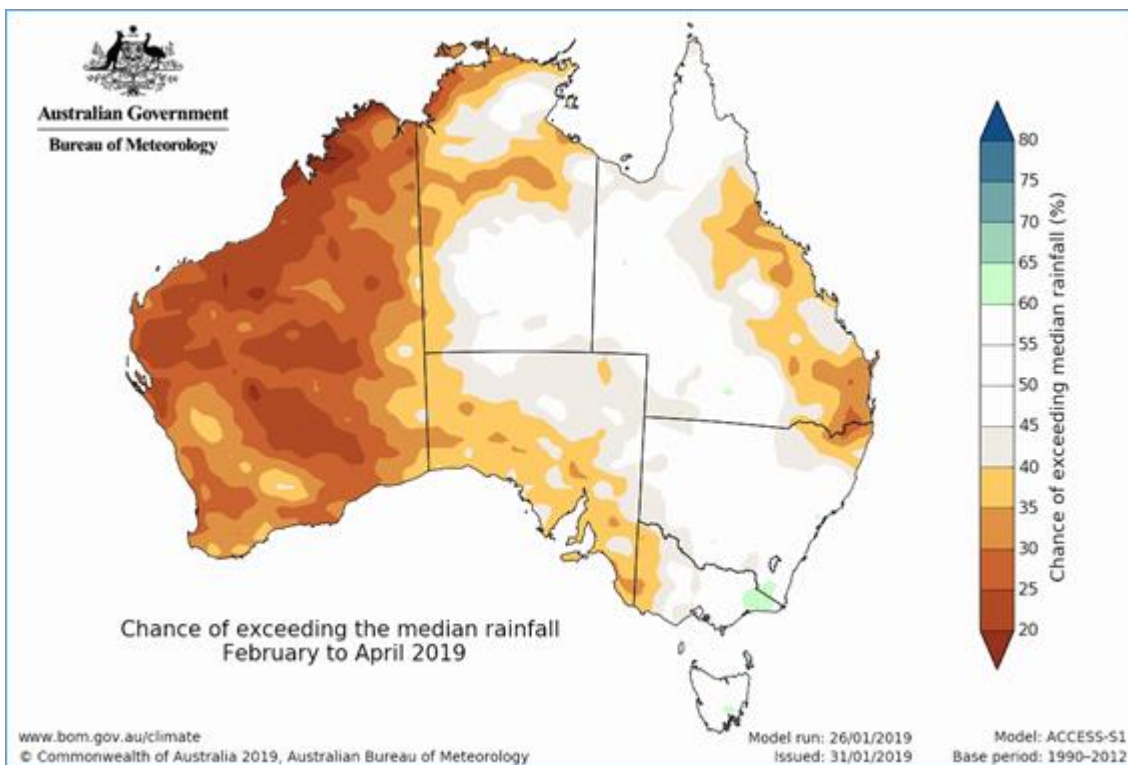


Figure 3. Rainfall outlook for Feb to Apr 2019 from BoM.

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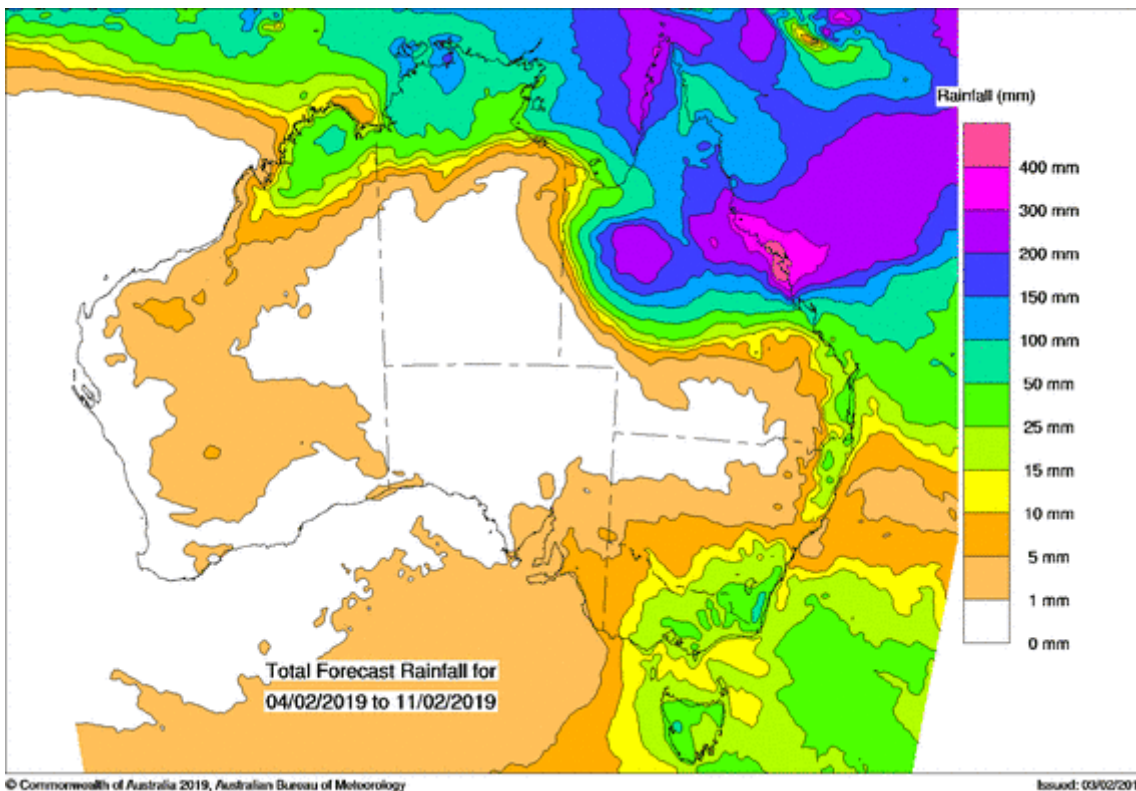


Figure 4. Predicted rainfall for the next week (until 11 Feb 2019), from BoM.

Additional information can be sourced from:

[DPIRD: Seasonal Climate Information](#)

[DPIRD: Potential Yield Tool](#)

[DPIRD Extreme Weather Events Tool](#)

[BoM: Seasonal Rainfall Outlook, next 3 months](#)

[BoM: Decile rainfall for April to November 2018](#)

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